



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/062,562	02/05/2002	Yuichi Satsu	62807-033	1929
7590 09/20/2005 MCDERMOTT, WILL & EMERY 600 13th Street, N.W. Washington, DC 20005-3096			EXAMINER FEELY, MICHAEL J	
			ART UNIT 1712	PAPER NUMBER

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/062,562

Applicant(s)

SATSU ET AL.

Examiner

Michael J. Feely

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>0502,0804</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I (claims 1-10) in the reply filed on July 19, 2005 is acknowledged.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 7 and 6. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Art Unit: 1712

4. Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. A frequency range at which the dielectric constant (of 15 or above) is determined is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). Applicants claim a dielectric constant of 15 or above; however, they fail to disclose at what frequency this dielectric constant is determined. As seen in the prior art (see rejections below), this frequency range is required to determine the dielectric constant.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: Applicants claim a dielectric constant of 15 or above; however, they fail to disclose at what frequency this dielectric constant is determined. As seen in the prior art (see rejections below), this frequency range is required to determine the dielectric constant.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for

Art Unit: 1712

patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

8. Claims 1-3, 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Walpita et al. (US Pat. No. 5,962,122).

Regarding claims 1-3, 8, and 9, Walpita et al. disclose: *(1)* a high dielectric composite material having a dielectric constant of 15 or above, comprising an organic resin and, dispersed therein, an inorganic filler containing a metal powder as its essential component (column 5, line 48 through column 6, line 52); *(2)* wherein the composite material has a dielectric loss tangent in the frequency range of from 100 MHz to 80 GHz of 0.1 or less (column 6, lines 40-52); *(3)* wherein each component of the inorganic filler containing the metal powder as its essential component has an average particle size of 5 μm or less (column 5, line 48 through column 6, line 10); *(8)* wherein the inorganic filler uses a metal oxide together with the metal powder (column 2, lines 36-44); and *(9)* wherein said metal powder is an element of Group 1B, 2B, 3B, 4B, 5B,

Art Unit: 1712

6B, 7B, 8, 2A, 3A, 4A or 5A (excluding boron, carbon, nitrogen, phosphorus and arsenic) or an allow thereof (column 2, lines 36-44).

9. Claims 1-3, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Tanisho et al. (US Pat. No. 5,856,395).

Regarding claims 1-3 and 9, Tanisho et al. disclose: *(1)* a high dielectric composite material having a dielectric constant of 15 or above, comprising an organic resin and, dispersed therein, an inorganic filler containing a metal powder as its essential component (column 9, lines 10-28; Table 1); *(2)* wherein the composite material has a dielectric loss tangent in the frequency range of from 100 MHz to 80 GHz of 0.1 or less (column 9, lines 10-28; Table 1); *(3)* wherein each component of the inorganic filler containing the metal powder as its essential component has an average particle size of 5 μm or less (column 5, lines 1-5); and *(9)* wherein said metal powder is an element of Group 1B, 2B, 3B, 4B, 5B, 6B, 7B, 8, 2A, 3A, 4A or 5A (excluding boron, carbon, nitrogen, phosphorus and arsenic) or an allow thereof (column 4, lines 42-56; column 9, lines 10-28; Table 1).

10. Claims 1, 3, 8, and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Wong et al. (US Pat. No. 6,544,651).

Regarding claims 1, 3, 8, and 9, Wong et al. disclose: *(1)* a high dielectric composite material having a dielectric constant of 15 or above, comprising an organic resin and, dispersed therein, an inorganic filler containing a metal powder as its essential component (column 15, line 42 through column 16, line 13); *(3)* wherein each component of the inorganic filler containing

Art Unit: 1712

the metal powder as its essential component has an average particle size of 5 μm or less (column 15, line 42 through column 16, line 13); (8) wherein the inorganic filler uses a metal oxide together with the metal powder (column 15, line 42 through column 16, line 13); and (9) wherein said metal powder is an element of Group 1B, 2B, 3B, 4B, 5B, 6B, 7B, 8, 2A, 3A, 4A or 5A (excluding boron, carbon, nitrogen, phosphorus and arsenic) or an allow thereof (column 15, line 42 through column 16, line 13).

Allowable Subject Matter

11. Claims 4-7 and 10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

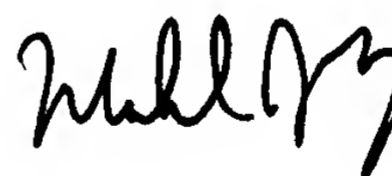
Art Unit: 1712

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Feely whose telephone number is 571-272-1086. The examiner can normally be reached on M-F 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael J. Feely
Primary Examiner
Art Unit 1712

September 14, 2005